Appln. No. 10/591,722
Supplemental Preliminary Amendment
Attorney Docket: MOEG-P100

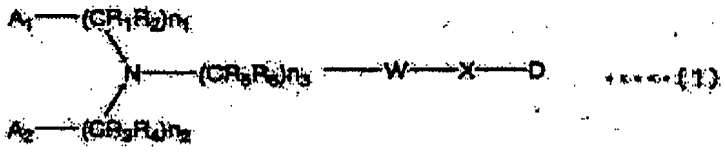
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims int he application:

Listing of Claims:

1. (Currently Amended) A compound represented by the following general formula (1) or a pharmacologically acceptable salt thereof, or a prodrug thereof:

[Formula 1]



wherein

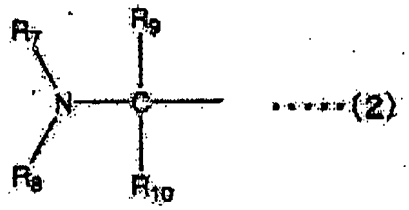
n_1, n_2, and n_3 represent an integer of 0 to 3;

R_1, R_2, R_3, R_4, R_5, and R_6 each independently represent a hydrogen atom, a substitutable alkyl group having 1 to 15 carbon atoms, a substitutable alkenyl group having 2 to 15 carbon atoms, a substitutable alkynyl group having 2 to 15 carbon atoms, or a substitutable cyclic alkyl group having 3 to 15 carbon atoms where R_5 and R_6 each may form a carbonyl group with a carbon atom bound thereto; and

A_1 and A_2 each independently represent a hydrogen atom, a substitutable monocyclic or polycyclic heteroaromatic ring, a partly saturated substitutable polycyclic heteroaromatic ring, a substitutable monocyclic or polycyclic aromatic ring, a partially

saturated substitutable polycyclic aromatic ring, a substitutable heteroring, or a group represented by the following formula (2):

[Formula 2]



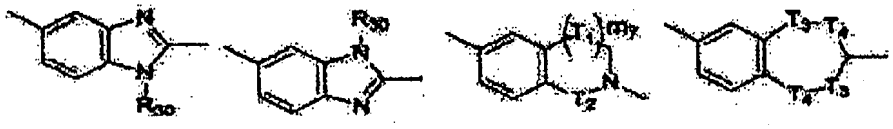
.....(2)

wherein

R_7, R_8, R_9, and R_{10} each independently represent a hydrogen atom, a substitutable alkyl group having 1 to 15 carbon atoms, a substitutable alkenyl group having 2 to 15 carbon atoms, a substitutable alkynyl group having 2 to 15 carbon atoms, or a substitutable cyclic alkyl group having 3 to 15 carbon atoms;

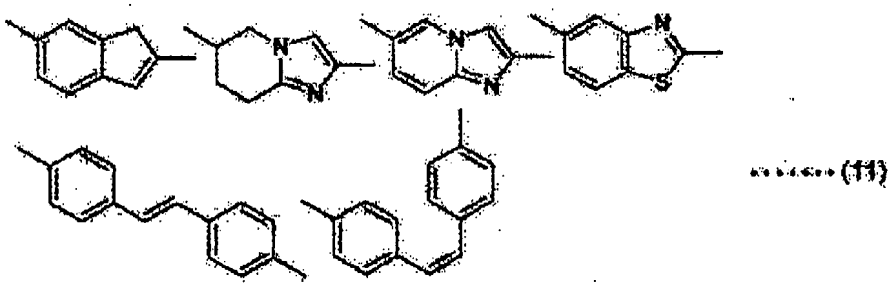
W represents any one of a substitutable benzene ring and groups represented by the following formulae (10) and (11):

[Formula 3]



.....(10)

[Formula 4]



(11)

wherein

R_{30} represents a hydrogen atom, a substitutable alkyl group having 1 to 15 carbon atoms, a substitutable alkenyl group having 2 to 15 carbon atoms, a substitutable alkynyl group having 2 to 15 carbon atoms, a substitutable cyclic alkyl group having 3 to 15 carbon atoms, a methanesulfonyl group, a p-toluenesulfonyl group, a phenyl group, an acyl group, a carboxyl group, or a cyano group;

m_7 represents an integer of 0 to 2;

T_1 and T_2 represent CH_2 or CO;

T_3 and T_4 have a relationship of T_3 = NH and T_4 = CO, or T_3 = CO and T_4 = NH;

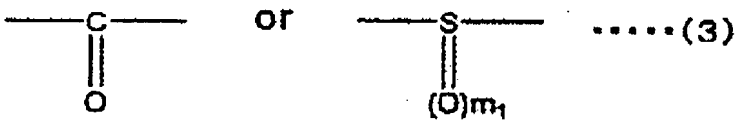
X represents a substitutable monocyclic or polycyclic heteroaromatic ring, a substitutable monocyclic or polycyclic aromatic ring, O, CH_2, NR_{11}, CHR_{35}, or a group represented by the following formula (3) or (12);

R_{11} represents a hydrogen atom, a substitutable alkyl group having 1 to 15 carbon atoms, a substitutable alkenyl group having 2 to 15 carbon atoms, a substitutable alkynyl

group having 2 to 15 carbon atoms, or a substitutable cyclic alkyl group having 3 to 15 carbon atoms;

R_{35} represents a carboxyl group or an alkoxycarbonyl group:

[Formula 5]



wherein

m_1 represents an integer of 1 or 2:

[Formula 6]

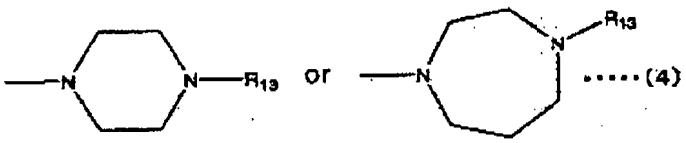
wherein

T_5 represents an oxygen atom or a sulfur atom;

R_{31} and R_{32} represent a hydrogen atom or an alkyl group having 1 to 3 carbon atoms, and R_{31} and R_{32} may be coupled to each other to form a ring;

D represents a group represented by the following formula (4) or (6):

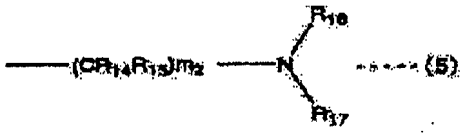
[Formula 7]



wherein

R_{13} represents a hydrogen atom, a substitutable alkyl group having 1 to 15 carbon atoms, a substitutable alkenyl group having 2 to 15 carbon atoms, a substitutable alkynyl group having 2 to 15 carbon atoms, a substitutable cyclic alkyl group having 3 to 15 carbon atoms, or a group represented by the following formula (5):

[Formula 8]

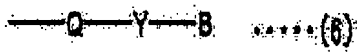


wherein

m_2 represents an integer of 2 to 4;

R_{14}, R_{15}, R_{16}, and R_{17} each independently represent a hydrogen atom, a substitutable alkyl group having 1 to 15 carbon atoms, a substitutable alkenyl group having 2 to 15 carbon atoms, a substitutable alkynyl group having 2 to 15 carbon atoms, or a substitutable cyclic alkyl group having 3 to 15 carbon atoms:

[Formula 9]



wherein

Q represents a single bond when X is O, a single bond or a group represented by the formula (3) when X is NR_{11}, or a single bond, S, O, or NR_{12}, or a group represented by the formula (13) when X is a substitutable monocyclic or polycyclic heteroaromatic ring, a substitutable monocyclic or polycyclic aromatic ring, CH_2 or is represented by the formula (3) or (12):

[Formula 10]

R_{12} represents a hydrogen atom, a substitutable alkyl group having 1 to 15 carbon atoms, a substitutable alkenyl group having 2 to 15 carbon atoms, a substitutable alkynyl group having 2 to 15 carbon atoms, a substitutable cyclic alkyl group having 3 to 15 carbon atoms, a methanesulfonyl group, a p-toluenesulfonyl group, a phenyl group, an acyl group, a carboxyl group, a cyano group, or a group represented by the formula (15):

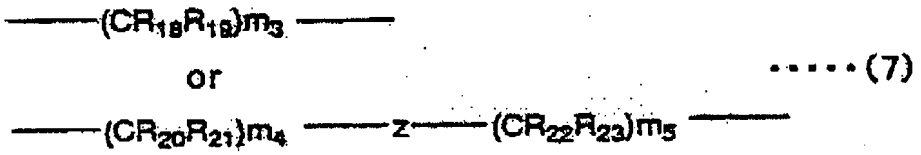
.....(15)

[Formula 11]

R_{34} represents a substitutable alkyl group having 1 to 15 carbon atoms, a substitutable cyclic alkyl group having 3 to 15 carbon atoms, or a phenyl group;

Y represents a group represented by the following formula (7):

[Formula 12]



.....(7)

wherein

m_3 represents an integer of 0 to 6;

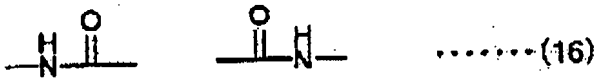
R_{18} and R_{19} each independently represent a hydrogen atom, a substitutable alkyl group having 1 to 15 carbon atoms, a substitutable alkenyl group having 2 to 15 carbon atoms, a substitutable alkynyl group having 2 to 15 carbon atoms, a substitutable cyclic alkyl group having 3 to 15 carbon atoms, or a substitutable aromatic ring, and R_{12} and R_{18} may form a ring;

m_4 and m_5 represent an integer of 0 to 2;

R_{20}, R_{21}, R_{22}, and R_{23} each independently represent a hydrogen atom, a substitutable alkyl group having 1 to 15 carbon atoms, a substitutable alkenyl group having 2 to 15 carbon atoms, a substitutable alkynyl group having 2 to 15 carbon atoms, or a substitutable cyclic alkyl group having 3 to 15 carbon atoms;

z represents a substitutable cyclic alkylene group having 3 to 15 carbon atoms, a substitutable monocyclic or polycyclic heteroaromatic ring, a partly saturated substitutable polycyclic heteroaromatic ring, a substitutable monocyclic or polycyclic aromatic ring, a partly saturated substitutable polycyclic aromatic ring, a substitutable heterocycle, S, O, NR_{12}, S=O, O=S=O, or the formula (16):

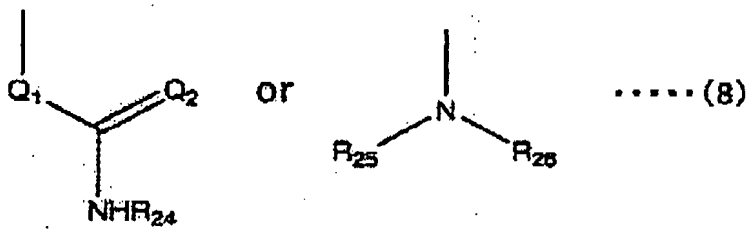
[Formula 13]



.....(16)

B represents any one of the groups represented by the following formulae (8) and (14):

[Formula 14]



.....(8)

wherein

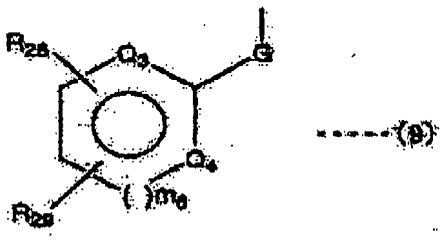
Q_1 represents S, O, or NH and Q_2 represents S, O, or NR_{27};

R_{24} and R_{27} each independently represent a hydrogen atom, a substitutable alkyl group having 1 to 15 carbon atoms, a substitutable alkenyl group having 2 to 15 carbon atoms, a substitutable alkynyl group having 2 to 15 carbon atoms, a substitutable cyclic alkyl group having 3 to 15 carbon atoms, or a substitutable aromatic ring, and R_{24} and R_{27} may form a ring;

R_{25} and R_{26}, when above X is CH_2, each independently represent a hydrogen atom, a substitutable alkyl group having 1 to 15 carbon atoms, a substitutable cyclic alkyl group having 3 to 15 carbon atoms, a substitutable alkenyl group having 2 to 15 carbon atoms and having 1 to 3 double bonds, or a substitutable alkynyl group having 2 to 15 carbon atoms and having 1 to 3 triple bonds, and R_{25} and R_{26} may form a ring and, depending on circumstances, the ring may be formed by binding through a heteroatom, a cyclic alkyl group, an aromatic ring, a heteroaromatic ring, or a heterocycle;

R_{25} and R_{26}, when above X is not CH_2, each independently represent a hydrogen atom, a substituent represented by the following formula (9), a substitutable alkyl group having 1 to 15 carbon atoms, a substitutable cyclic alkyl group having 3 to 15 carbon atoms, a substitutable alkenyl group having 2 to 15 carbon atoms and having 1 to 3 double bonds, or a substitutable alkynyl group having 2 to 15 carbon atoms and having 1 to 3 triple bonds, and R_{25} and R_{26} may form a ring and, depending on circumstances, the ring may be formed by binding through a heteroatom, a cyclic alkyl group, an aromatic ring, a heteroaromatic ring, or a heterocycle:

[Formula 15]



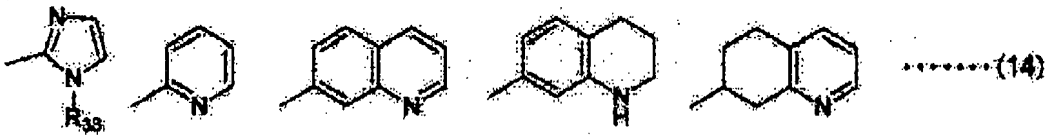
wherein

m_6 represents 0 or 1, where when $m_6 = 0$, Q_3 represents CH or N and Q_4 represents N, S, or O, and when $m_6 = 1$, Q3 and Q4 each G represents a substitutable alkylene group having 1 to 15 carbon atoms or a substitutable alkenylene group having 2 to 15 carbon atoms;

R_{28} represents an alkyl group having 1 to 15 carbon atoms, a substitutable alkenyl group having 2 to 15 carbon atoms, a substitutable alkynyl group having 2 to 15 carbon atoms, an alkoxy group, a haloalkyl group, a haloalkoxy group, a hydroxyalkoxy group, a halogen atom, an amino group, an alkylamino group, a carboxyl group, an alkoxycarbonyl group, a carbamoyl group, an alkylcarbamoyl group, a saturated heterocycle, or a heteroaromatic ring, which is substituted at any position except a nitrogen atom which may be present on the ring or may represent a hydrogen atom when $m_6 = 1$ and Q_3 and Q_2 simultaneously represent CH;

R_{29} represents a hydrogen atom or the same group as R_{24}, and may be coupled with G to form a ring:

[Formula 16]



.....(14)

wherein

R_{33} ~~represent~~ represents the same group as that of above R_{12},

wherein one or two or more asymmetric carbon atoms may exist in the compound represented by the general formula (1), where when one asymmetric carbon atom exists, the compound may be in the form of any one of a pure optically-active substance represented by the absolute configuration R or S, a mixture thereof in a predetermined ratio, and a racemic mixture thereof or when two or more asymmetric carbon atoms exist, the compound may be in the form of any one of an optically pure diastereomer, a racemic mixture thereof, and a combination thereof in a predetermined ratio.

2. (Original) A compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1, wherein n_1, n_2, and n_3 represent an integer of 1 and R_1, R_2, R_3, R_4, R_5, and R_6 represent a hydrogen atom.

3. (Previously Presented) A compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1, wherein A_1 and A_2 each independently represent a hydrogen atom or a substitutable monocyclic or polycyclic heteroaromatic ring.

4. (Previously Presented) A compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1, wherein W represents a group represented by the formula (10).

5. (Previously Presented) A compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1, wherein W represents a benzene ring and X represents a group represented by the formula (12).

6. (Previously Presented) A compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1, wherein W represents a benzene ring, X represents $-CH_2-$, and D represents a group represented by the formula (6) where Q represents a group represented by NR_{12} and R_{12} is based on the same definition as described above.

7. (Previously Presented) A compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1,
wherein D represents a group represented by the formula (6), in the formula
Q represents NR_{12} where R_{12} is based on the same definition as described above; and
Y represents a group represented by $-(CR_{18}R_{19})m_3-$ where R_{18}, R_{19}, and m_3 are based on the same definition as described above.

8. (Previously Presented) A compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1, wherein:
D represents a group represented by the formula (6), in the formula Q represents any one of the groups represented by the formula (13) where R_{12} is based on the same definition as described above; and

Y represents a group represented by $-(CR_{18}R_{19})m_3-$ where R_{18}, R_{19}, and m_3 are based on the same definition as described above.

9. (Previously Presented) A compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1, wherein D represents a group represented by the formula (6) where B represents $-NR_{25}R_{26}$ where R_{25} and R_{26} are based on the same definition as described above.

10. (Previously Presented) A compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1, wherein D represents a group represented by the formula (6) where B represents any one of the groups represented by the formula (14).

11. (Currently Amended) A compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1 which is selected from the group consisting of:

2-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-ethanol;

[4-(6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-1H-benzimidazol-2-yl)-butyl]-dipropyl-amine;

[4-(6-{[bis-(1H-imidazol-2-ylmethyl)-amino]-methyl}-1-propyl-1H-benzimidazol-2-yl)-butyl]-dipropyl-amine;

[4-(6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-1-propyl-1H-benzimidazol-2-yl)-butyl]-dipropyl-amine;

[4-(5-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-1-propyl-1H-benzimidazol-2-yl)-butyl]-dipropyl-amine;

4-{[N-(1H-imidazol-2-ylmethyl)-amino]-methyl-N-(4-dipropylamino-butyl)-benzamide;

2-(4-dipropylamino-butyl)-5-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-2,3-dihydro-isoindol-1-one;

2-(4-dipropylamino-butyl)-6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-2,3-dihydro-isoindol-1-one;

N-(4-{[(1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-N-methyl-N',N'-dipropyl-butane-1,4-diamine;

N-methyl-N-[4-({[1-(1-methyl-1H-imidazol-2-ylmethyl)-1H-imidazol-2-ylmethyl]-amino}-methyl)-benzyl-N',N'-dipropylbutane-1,4-diamine;

[4-(6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-1H-inden-2-yl)-butyl]-dipropyl-amine;

1-(4-dipropylaminobutyl)-3-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-phenyl)-urea;

[4-(6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-1-methyl-1H-benzimidazol-2-yl)-butyl]-dipropyl-amine;

3-(3-dipropylaminopropyl)-8-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-3,4-dihydro-1H-benzo[e][1,4]diazepin-2,5-dione;

4-{[(3,5-dimethyl-pyridin-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-N-(4-dipropylaminomethyl-phenyl)-benzamide;

4-{[(5-ethyl-pyridin-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-N-(4-dipropylaminomethyl-phenyl)-benzamide;

[4-(6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-3,4-dihydro-1H-isoquinolin-2-yl)-butyl]-dipropyl-amine;

[3-(6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-1-methyl-1H-benzimidazol-2-yl)-benzyl]-dipropyl-amine;

6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-5,6,7,8-tetrahydro-imidazo[1,2-a]pyridine-2-carboxylic acid-(4-dipropylamino-butyl)-amide;

N-(4-dipropylamino-butyl)-4-{[(1-methyl-1H-[[imidazo]]imidazol-2-ylmethyl)-(5-methyl-pyridin-2-ylmethyl)-amino]-methyl}-benzamide;

N-(4-dipropylamino-butyl)-N-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-methanesulfonamide;

N-(4-dipropylamino-butyl)-N-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-4-methyl-benzenesulfonamide;

N-ethyl-N-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-N',N'-dipropyl-butane-1,4-diamine;

N-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-N-phenyl-N',N'-dipropyl-butane-1,4-diamine;

N-(4-dipropylamino-butyl)-N-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-acetamide;

1-(4-dipropylamino-butyl)-3-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-phenyl)-1-methyl-urea;

1-(4-dipropylamino-butyl)-3-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-phenyl)-1,3-dimethyl-urea;

N-methyl-N-[4-({(1-methyl-1H-imidazol-2-ylmethyl)-[1-(toluene-4-sulfonyl)-1H-imidazol-2-ylmethyl]-amino}-methyl)-benzyl]-N",N"-dipropyl-butane-1,4-diamine;

[4-(6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-1-methyl-1H-benzimidazol-2-yl)-benzyl]-dipropyl-amine;

6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-imidazo[1,2-a]pyridine-2-carboxylate-(4-dipropyl)-amino-butyl)-amide;

N-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-

methyl}-benzyl)-N',N'-dipropyl-N-(2,2,2-trifluoro-ethyl)-butane-1,4-diamine;

N-(4-{[(1-methanesulfonyl-1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-N-methyl-N",N"-dipropyl-butane-1,4-diamine;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionitrile;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid methyl ester;

1-(4-dipropylamino-butyl)-3-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-phenyl)-thiourea;

{3-[6-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-phenyl)-pyridin-2-yl]-propyl}-dipropyl-amine;

N-(4-dipropylamino-butyl)-2,2,2-trifluoro-N-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-acetamide;

[4-(5-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-1,3-dihydro-isoindol-2-yl)-butyl]-dipropyl-amine;

{4-(1E)-[2-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-phenyl)-vinyl]-benzyl}-dipropyl-amine;

{[4-((1Z)-2-{4-[(dipropylamino)-methyl]-phenyl}-vinyl)-phenyl]-methyl}-(imidazol-2-ylmethyl)-[(1-methylimidazol-2-yl)-methyl]-amine;

{[4-((1E)-2-{4-[2-(dipropylamino)-ethyl]-phenyl}-vinyl)-phenyl]-methyl}-(imidazol-2-ylmethyl)-[(1-methylimidazol-2-yl)-methyl]-amine;

{[4-((1E)-2-{4-[(dipropylamino)-methyl]-phenyl}-vinyl)-phenyl]-methyl}-bis-(imidazol-2-ylmethyl)-amine;

[4-(6-{[(1H-imidazol-2-yl-methyl)-(1-methyl-imidazol-2-yl-methyl)-amino]-methyl}-benzothiazol-2-yl)-benzyl]-dipropyl-amine;

(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-

methyl}-benzyl)-methyl-(4-piperidin-1-ylbutyl)amine;

2-(2-(4-dipropylamino-butyl)-6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzimidazol-1-yl)-ethanol;

[3-(6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-1-propyl-1H-benzimidazol-2-yl)-propyl]-dipropyl-amine;

[4-(6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-1-isopropyl-1H-benzimidazol-2-yl)-butyl]-dipropyl-amine;

[5-(6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-1-propyl-1H-benzimidazol-2-yl)-pentyl]-dipropyl-amine;

N-(4-{[(1H-imidazol-2-ylmethyl)-[[(5,6,7,8-tetrahydrohydro-quinolin-8-yl)]](5,6,7,8-tetrahydro-quinolin-8-yl-amino]-methyl}-benzyl)-N-methyl-N',N'-dipropyl-butane-1,4-diamine;

N-(4-dipropylamino-butyl)-N-(4-{[(1H-imidazol-2-ylmethyl)-(5,6,7,8-tetrahydro-quinolin-8-yl)-amino]-methyl}-benzyl)-methanesulfonamide;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid;

(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-cyanamide;

(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-formamide;

[(4-{[(1-carboxymethyl-1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-(4-dipropylamino-butyl)amino]-acetic acid; and

[4-(1-benzyl-6-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-1H-benzimidazol-2-yl)-butyl]-dipropyl-amine.

12. (Previously Presented) A compound, a pharmacologically acceptable salt thereof, or a pro-drug thereof according to claim 1 which is selected from the group consisting of:

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid ethyl ester;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid isopropyl ester;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid benzyl ester;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid butyl ester;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid-5-methyl-2-oxo-[1,3]-dioxol-4-ylmethyl ester;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid-1-ethyl-propoxycarbonyloxy methyl ester;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid-1-(cyclohexyloxycarbonyloxy)-ethyl ester;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid-methoxycarbonyloxy methyl ester;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid-ethoxycarbonyloxy methyl ester;

2,2-dimethyl-propionic acid-3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionyloxy methyl ester;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid-3-oxo-1,3-dihydro-isobenzofuran-1-yl ester;

Hexanoic acid-3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionyloxymethyl ester;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid-3-cyclopentyl-propionyloxymethyl ester;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid-diethylcarbamoyloxy methyl ester;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-propionic acid t-butoxycarbonyl methyl ester;

3-[(4-dipropylamino-butyl)-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-amino]-N-ethyl-propionamide;

3-[(4-{[bis-(1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-(4-dipropylamino-butyl)-amino]-propionic acid;

3-[(4-{[bis-(1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-(4-dipropylamino-butyl)-amino]-propionate;

3-[(4-{[bis-(1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-(4-dipropylamino-butyl)-amino]-propionic acid-5-methyl-2-oxo-[1,3]dioxol-4-ylmethyl ester;

3-[(4-{[bis-(1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-(4-dipropylamino-butyl)-amino]-propionic acid-1-(cyclohexyloxycarbonyloxy)-ethyl ester;

2,2-dimethyl-propionic acid-3-[(4-{[bis-(1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-(4-dipropylamino-butyl)-amino]-propionyloxymethyl ester;

3-[(4-{[bis-(1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-(4-dipropylamino-butyl)-amino]-propionic acid-3-oxo-1,3-dihydro-isobenzofuran-1-yl ester;

3-[(4-{[bis-(1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-(4-dipropylamino-butyl)-amino]-propionic acid-diethylcarbamoyloxy methyl ester; and

3-[(4-{[bis-(1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-(4-dipropylamino-butyl)-amino]-N-ethyl-propionamide.

13. (Previously Presented) A compound, a pharmacologically acceptable salt thereof, or a pro-drug thereof according to claim 1 which is selected from the group consisting of:

(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-[2-(4-piperidin-1-yl-butyl)-3-propyl-3H-benzimidazol-5-ylmethyl]-amine;

3-[(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-(4-piperidin-1-yl-butyl)-amino]-propionic acid;

[(4-dipropylamino-butyl)-(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-acetonitrile;

[(4-dipropylamino-butyl)-(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-acetic acid methyl ester;

[(4-dipropylamino-butyl)-(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-acetic acid;

3-[(4-dipropylamino-butyl)-(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-propionic acid-1-

isopropoxycarbonyloxy-ethyl ester;

3-[(4-[[bis-(1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-(4-dipropylamino-butyl)-amino]-propionic acid methyl ester;

[(4-[[bis-(1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-(4-dipropylamino-butyl)-amino]-acetic acid methyl ester;

[(4-[[bis-(1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-(4-dipropylamino-butyl)-amino]-acetic acid;

[(4-dipropylamino-butyl)-([[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-acetic acid benzyl ester;

[(4-dipropylamino-butyl)-(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-acetic acid-2-morpholin-4-yl-ethyl ester;

[[4-(dipropyl-amino)-butyl]-(4-[[1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-acetic acid ethyl ester;

[(4-dipropylamino-butyl)-(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-acetic acid-2-methoxy-ethyl ester;

[(4-dipropylamino-butyl)-(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-acetic acid cinnamyl ester;

[(4-dipropylamino-butyl)-(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-acetic acid-2-(2-hydroxy-ethoxy)-ethyl ester;

(4-dipropylamino-butyl)-(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-carbamic acid t-butyl ester;

N-(2-chloro-4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-N-methyl-N',N'-dipropyl-butane-1,4-diamine;

[(4-[[bis-(1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-(4-dipropylamino-butyl)-amino]-acetic acid ethyl ester;

[(4-dipropylamino-butyl)-(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-acetic acid-3,7,11-trimethyl-dodeca-2,6,10-trienyl ester;

2-[(4-dipropylamino-butyl)-(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-N,N-dimethyl-acetamide;

[(4-[[bis-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-(4-dipropylamino-butyl)-amino]-acetic acid;

[(4-[[bis-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-(4-dipropylamino-butyl)-amino]-acetic acid ethyl ester;

[(4-dipropylamino-butyl)-([[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-acetic acid-(R)-(-)-tetrahydrofuran-2-ylmethyl ester;

([4-[(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-methyl-amino]-butyl]-propyl-amino)-acetic acid;

([4-[carboxymethyl-(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-butyl]-propyl-amino)-acetic acid;

(2-[[(1-carboxymethyl-1H-imidazol-2-ylmethyl)-(4-[[(4-dipropylamino-butyl)-methyl-amino]-methyl]-benzyl)-amino]-methyl]-imidazol-1-yl)-acetic acid;

(2-[[(4-[[(4-dipropylamino-butyl)-methyl-amino]-methyl]-benzyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-imidazol-1-yl)-acetic acid;

4-[[(4-dipropylamino-butyl)-methyl-amino]-methyl]-N-(1H-imidazol-2-ylmethyl)-N-(1-methyl-1H-imidazol-2-ylmethyl)-benzamide; and

2-[(4-dipropylamino-butyl)-(4-[[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl]-benzyl)-amino]-malonic acid diethyl ester.

14. (Previously Presented) A compound, a pharmacologically acceptable salt thereof, or a pro-drug thereof according to claim 1 which is selected from the group consisting of:

(2-{2-[(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-methyl-amino]-ethoxy}-ethyl)-dipropyl-amine;

N-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-N',N'-dipropyl-N-(1H-tetrazol-5-ylmethyl)-butane-1,4-diamine;

5-dipropylamino-(2S)-[(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-methyl-amino]-pentanoic acid ethyl ester;

5-dipropylamino-(2S)-[(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-methyl-amino]-pentanoic acid;

(2S)-dipropylamino-5-[(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-methyl-amino]-pentanoic acid ethyl ester;

(2S)-dipropylamino-5-[(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-methyl-amino]-pentanoic acid;

5-dipropylamino-(2R)-[(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-methyl-amino]-pentanoic acid ethyl ester;

5-dipropylamino-(2R)-[(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-methyl-amino]-pentanoic acid;

(2R)-dipropylamino-5-[(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-methyl-amino]-pentanoic acid ethyl ester;

(2R)-dipropylamino-5-[(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzyl)-methyl-amino]-pentanoic acid;

[(4-dipropylamino-butyl)-methyl-amino]-(4-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-phenyl)-acetic acid ethyl ester;

[(4-dipropylamino-butyl)-methyl-amino]-(4-{[(1H-imidazol-2-ylmethyl)-(1-

methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-phenyl)-acetic acid;

2-{[(4-dipropylamino-butyl)-methyl-amino]-methyl}-5-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzoic acid ethyl ester; and

2-{[(4-dipropylamino-butyl)-methyl-amino]-methyl}-5-{[(1H-imidazol-2-ylmethyl)-(1-methyl-1H-imidazol-2-ylmethyl)-amino]-methyl}-benzoic acid.

15. (Previously Presented) A medical composition, comprising as an active ingredient a compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1.

16. (Previously Presented) A method for treating a CXCR4 associated disease comprising administering to a patient in need of such treatment a pharmaceutically effective amount of a compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1.

17. (Previously Presented) A method for treating a viral infectious disease comprising administering to a patient in need of such treatment a pharmaceutically effective amount of a compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1.

18. (Previously Presented) A method for treating a rheumatic disease, comprising administering to a patient in need of such treatment a pharmaceutically effective amount of a compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1.

19. (Previously Presented) A method for treating cancer metastatic disease, comprising administering to a patient in need of such treatment a pharmaceutically effective amount of a compound, a pharmacologically acceptable salt thereof, or a prodrug thereof according to claim 1.